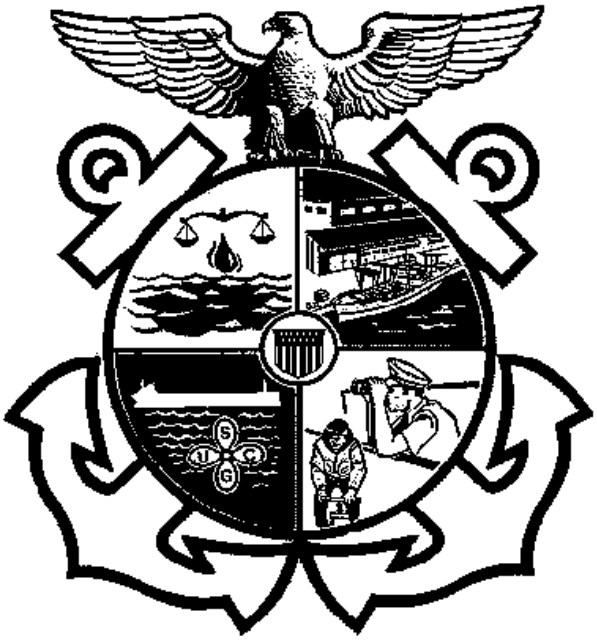
Offshore Supply Vessel Inspector (OI)



PQS Workbook

OI Qualification
Task Matrix

TSK #	TASK	DATE
AC01	Inspect berthing accommodations.	
AC04	Inspect mess deck spaces.	
AC06	Inspect areas where washers and dryers are installed.	
AC07	Inspect paint lockers.	
AC08	Inspect ladders, railways, and gangways.	
AC10	Inspect heating and cooking equipment.	
CS01	Verify cargo aboard is transported in approved cargo systems.	
CS03	Inspect bulk liquid cargo system on an OSV or MODU.	
DD01	Ensure that the vessel's entire underwater body is clean for examination.	
DD02	Determine whether structural configuration match approved plans.	
DD06	Examine steel hull for damage and defects.	
DD10	Examine critical joint areas.	
DD11	Examine draft marks.	
DD12	Examine load line.	
DD13	Examine drydock plugs for local wastage and proper fit.	
DD14	Examine sea chests and overboard discharges.	
DD16	Examine propeller for damage.	
DD18	Inspect tailshaft(s) and stern bearings.	
DD20	Inspect the rudder installation.	
DD22	Examine anchor chains.	
DD23	Complete applicable structural failure reports and obtain CG-2692.	
DD24	Examine freeing ports and scuppers.	
DD25	Open sea valves for inspection.	
DD27	Examine thruster (bow or stern) and thruster tunnel.	
DD29	Conduct inspection of internal spaces and structures.	
DD31	Evaluate repair proposals and inspect completed repairs.	
ED03	Observe emergency drills.	
ED04	Review logbook and ensure entries for tests and drills have been made.	
EE01	Inspect fireman's outfit(s).	

OI Qualification
Task Matrix

TSK #	TASK	DATE
EE04	Inspect EPIRB.	
EE05	Test and inspect the general alarm system.	
EE06	Inspect line throwing equipment.	
EE09	Inspect pyrotechnics.	
ES01	Inspect switchboards.	
ES02	Inspect ship's service generators.	
ES04	Inspect emergency generators.	
ES05	Inspect battery installation.	
ES06	Inspect motor controllers.	
ES07	Ensure lighting systems/fixtures are adequate and meet requirements.	
ES09	Ensure receptacle outlets are properly grounded.	
ES10	Inspect distribution panels.	
ES12	Survey/inspect electrical cable installation.	
ES14	Test/inspect internal communication and control systems.	
ES16	Inspect components installed in designated hazardous locations.	
ES18	Inspect the general alarm system emergency batteries.	
ES19	Perform operational test of remote ventilation shutdowns.	
FF01	Determine amount, type, location of fire protection equipment required.	
FF02	Inspect CO2 systems.	
FF06	Inspect Halon systems.	
FF08	Inspect semi-portable firefighting equipment.	
FF09	Inspect portable firefighting equipment.	
FF10	Inspect fire main and fire stations.	
FF13	Witness operational test of fire detection system.	
FF14	Examine fire doors and dampers.	
FF17	Review fire control and hazardous location plans.	
FF18	Inspect fire axes.	
FF19	Inspect condition of vent and duct leading from grill in galley.	
FF20	Examine fire control plan.	

OI Qualification
Task Matrix

TSK #	TASK	DATE
FF21	Inspect accommodation areas for compliance with SFP requirements.	
FP01	Verify that required forms, placards and notices are posted.	
GT01	Verify ground tackle and related equipment is in satisfactory condition.	
GT04	Inspect mooring system/equipment.	
II01	Review vessel documents and papers; state if each is valid or expired.	
II05	Discuss scope of inspection with owner's representative.	
II06	Obtain CG-2692 for reportable marine casualties.	
II07	Examine gas-free certificate.	
II08	Review hull gaugings and compare with original scantlings.	
II09	Review any outstanding CG-835s and ask if other deficiencies exist.	
LB01	Examine approved operating manual.	
LB02	Conduct leg inspection.	
LB03	Examine jacking systems.	
LB04	Examine hydraulic systems.	
LB05	Test firemain suction.	
LB06	Inspect cranes.	
LB07	Examine freeboard marks.	
LB08	Examine test alarm installation.	
LS01	Determine amount/type of lifesaving equipment required.	
LS05	Inspect life preservers.	
LS06	Inspect ring buoys.	
LS07	Inspect survival suits.	
LS16	Inspect inflatable liferaft installations.	
LS17	Inspect rescue boat.	
LS18	Check if vessel meets criteria for rescue platform in lieu of rescue boat.	
MI01	Determine condition of the components of the steering gear assembly.	
MI04	Inspect fuel oil service and transfer system.	
MI06	Inspect bilge pumps installation, piping, and valves.	
MI08	Examine refrigeration/air conditioning machinery.	

OI Qualification
Task Matrix

TSK #	TASK	DATE
MI09	Examine potable water system.	
MI10	Observe operational tests of machinery.	
MI13	Inspect the diesel installation and assembly.	
MI16	Inspect air starting systems.	
MI17	Inspect hydraulic starting systems.	
MI18	Inspect electric starting systems.	
MI19	Witness operational test of main propulsion diesel automation.	
MI22	Internally examine UPVs requiring internal examination.	
MI23	Externally examine UPVs.	
MI24	Hydrostatically test UPVs requiring hydrostatic testing.	
MI25	Ensure all UPVs are properly equipped with pressure relief valves.	
MI26	Witness pressure relief valve test.	
MI30	Conduct a fireside and external exam of an auxiliary/heating boiler.	
MI31	Conduct a waterside examination of an auxiliary/heating boiler.	
MI32	Conduct required mountings inspections.	
MI33	Conduct a hydrostatic test of the boiler(s).	
MI34	Witness the lifting and reseating of safety valves.	
MI38	Ensure insulation on steam piping provided to reduce personnel hazard.	
NS01	Ensure radars are operable.	
NS02	Inspect magnetic compass.	
NS03	Inspect required depth sounding/recording equipment.	
NS04	Examine radio direction-finding equip./elect. position fixing devices.	
NS05	Examine radio equipment and FCC or SOLAS documents.	
NS06	Inspect navigation and signal lights.	
NS09	Inspect signaling devices.	
NS10	Inspect navigation publications.	
NS12	Ensure required navigational equipment is on board.	
NS14	Ensure required pre-arrival and departure tests are logged.	
NT01	Approve NDT method for specific applications.	

OI Qualification
Task Matrix

TSK #	TASK	DATE
NT02	Check certification of NDT technician.	
NT03	Witness NDT in accordance with applicable standards.	
NT04	Evaluate NDT results.	
PP01	Inspect pollution prevention equipment and documentation.	
PP03	Ensure that MSD requirements are met.	
PP04	Conduct IOPP boarding and survey.	
PP05	Verify MARPOL V compliance.	
RT01	Complete Initial Indoctrination Lesson Plan Series (IILPS).	
RT02	Complete Inspection Department Course.	
RT06	Complete SMI Introduction Course.	
RT09	Complete SMI OSV Course or the Hull and Machinery Courses.	
ST02	Examine stability letter.	
VS02	Inspect vents to voids, ballast, and portable water tanks.	
VS03	Examine deck openings and vents.	
WI01	Inspect watertight doors.	
WI03	Inspect watertight bulkhead penetrations.	
WI05	Inspect remote-operated valves and controls.	
WI06	Inspect bilge wells and "rose boxes."	
WI07	Inspect hull and deck openings.	
WI09	Inspect port light covers.	
WI11	Evaluate steel or aluminum hulls and all accessible spaces for damage.	
WR01	Evaluate welding repair proposal.	
WR02	Complete initial visual inspection of weld repair.	
WR03	Complete intermediate visual inspection of weld repair.	
WR04	Complete final visual inspection of weld repair.	
WR05	Witness pressure testing of welded repairs.	
WR06	Examine approved WPS and WPQ.	

OI Qualification
Task Matrix

Trainee's OJT Manual has been reviewed and I recommend a training qualification board be scheduled.

Training Officer: _____

Date: _____

Date Qualification Board Completed: _____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
AC01	Inspect berthing accommodations. • Spaces provided of size required by regulations • Appropriate number of berths provided • Proper seating available for PAX's on vessels whose voyages are limited by certificate of inspection to set time periods • Lockers of proper size provided for each berth • Screens provided for ventilation ports on non-air conditioned vessels • Mechanical ventilation/air-conditioning systems operating properly • Adequate number of toilets and washrooms provided for number of persons in crew specified on certificate of inspection, kept in good repair and in a sanitary condition • Lights provided for each berth • Hot water heating piping within the space properly lagged • Electrical hazards • Two means of escape provided from each berthing space and other areas where personnel would normally be employed	_____	_____
AC04	Inspect mess deck spaces. • Reasonable sanitation standards are evident • No excessive grease buildup has accumulated in the grill area and in the grill vent • Chill boxes are operable and reasonably clean • Escape latches or alarm systems on the chill boxes are functioning properly	_____	_____
AC06	Inspect areas where washers and dryers are installed. • Dryer unit is properly vented and no fire hazard due to lint buildup exists • "Jury-rigged wiring" systems for units are employed • Units securely mounted	_____	_____
AC07	Inspect paint lockers. • Required fire protection equipment provided in accordance with applicable regulations and vessel's approved fire safety plan • Space(s) designated constructed of or wholly lined with metal • Space(s) well vented and means provided to secure ventilation if necessary	_____	_____
AC08	Inspect ladders, rails and gangways. • An approved pilot ladder provided and maintained in good repair • Accommodation ladder of sufficient size provided to be used when distance from sea level to vessel's deck is more than 30 feet	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• "Rails" are provided on accommodation ladders, when used		
AC10	Inspect heating and cooking equipment. • Thermal cutouts for electric space heaters • Grab rails for electric ranges • LPG/CNG installed in accordance with regulations	_____	_____
CS01	Verify cargo aboard is being transported in approved cargo systems.	_____	_____
CS03	Inspect bulk liquid cargo system on an OSV or MODU. • Pumprooms and/or pumping equipment: – Lighting fixtures and all electrical equipment are explosion proof – No dead ended, loose or frayed cabling – No jury-rigged wiring, extension cords, etc. – Ventilation system – Pumps and controls operational – No leaking seals – Mechanical and electrical remote operating devices attached and operational • Cargo piping: – Piping – Valves – Fittings – Gaskets – Supports – Materiel condition of all components – Expansion joints • Gauging and venting system: – Type of gauging (open, closed, restricted) – Gauging type approved for cargo carried – Gauging systems operational High and low level alarms – Overfill controls – Condition of vent piping – Vent outlets at proper height – Required valves installed and operational – Pressure vacuum valves and headers free of corrosion or dirt – Flame screens installed and acceptable	_____	_____
DD01	Ensure that the vessel's entire underwater body is clean and exposed for examination (areas in way of blocking excluded).	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
DD02	Determine whether structural configurations match approved plans.	_____	_____
DD06	Examine steel hull for damage and defects.	_____	_____
DD10	Examine critical joint areas. • Sheer strake • Stringer plate	_____	_____
DD11	Examine draft marks (placement of marks consistent with stability letter and properly scribed).	_____	_____
DD12	Examine load lines (placement of marks consistent with load line certificate and properly scribed).	_____	_____
DD13	Examine drydock plugs for local wastage and fit.	_____	_____
DD14	Examine sea chests and overboard discharges. • Strainers and fastenings fitted • Deterioration and cracks • Valve and spool piece connections	_____	_____
DD16	Examine propeller for damage.	_____	_____
DD18	Inspect tailshaft(s) and stern bearings. • Determine tailshaft diameter • Determine when tailshaft was last pulled and when next is due • Examine shaft, NDT, keyway, liner, surfaces, and bearings • Determine bearing weardown	_____	_____
DD20	Inspect the rudder installation. • Determine condition of gudgeons, pintles, and pintle locking device • Examine rudder post, rudder frame, rudder stock and stern frame for deterioration and fractures • Examine rudder carrier for deterioration and fractures	_____	_____
DD22	Examine anchor chains and determine if links are distorted or deteriorated excessively.	_____	_____
DD23	Complete applicable structural failure reports and obtain CG-2692 for reportable marine casualties.	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
DD24	Examine freeing ports and scuppers.	_____	_____
DD25	Open and conduct inspection of sea valves and bilge injection valve. • Stem, gate, and guides in good condition • Valves operate in power and manual modes • Valves have rising stems, or other means of showing valve open or closed • Examine condition of valve bodies, fastenings, packing glands, and spool pieces • Examine non-metallic expansion joints	_____	_____
DD27	Examine thruster (bow or stern) and thruster tunnel. • Deterioration and cracks • Erosion of welds • Shaft seal or packing gland leakage	_____	_____
DD29	Conduct inspection of internal spaces and structures for fractured welds, fractured structural members, coating failure, deterioration, and buckled or distorted structure. • Deck beams, underdeck longitudinals, deck girders • Side and bottom longitudinals • Center vertical keel and keelsons • Frames, stiffeners, and brackets • Hatch covers	_____	_____
DD31	Evaluate repair proposals and inspect completed repairs. • Sketch and bill of materials • Materials and welding details same as original • Inserts properly made • Fit up and joint preparation • Back gouging • Weld sequencing • Visual inspection of completed repair • Pressure test repairs (hose, air, hydro)	_____	_____
ED03	Observe emergency drills. • Maximum participation by crew accomplished • During fire drills, fire pump(s) started and fire hose(s) lead out • All alarm bells function properly • Escapes are clear and unobstructed	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Crew competent to handle emergency situations		
ED04	Review logbook and ensure entries related to tests and drills have been made.	_____	_____
EE01	Inspect fireman's outfit(s). • Proper number aboard vessel • Outfits correctly stowed • Describe what constitutes a fireman's outfit • What spare equipment is required • Location(s) of fireman's outfits listed on fire safety plan • Location(s) marked in accordance with applicable regulations • Steps been taken to thwart pilfering and do they deny legitimate access to equipment • Communications system to the bridge necessary	_____	_____
EE04	Inspect EPIRB. • Right type • Operative • Stowed properly • Tested as frequently and in manner required by regulations • Battery still within date	_____	_____
EE05	Test and inspect the general alarm system. • Contact makers located in accordance with applicable regulations • General alarm bells located in accordance with applicable regulations • Sound levels produced meet the minimum criteria required by regulations (is it loud enough) • Any of the alarm bells inoperative • Visual signals installed in areas of high ambient noise level • Contact makers and general alarm bells marked in accordance with regulations	_____	_____
EE06	Inspect line-throwing equipment. • Required equipment provided • Equipment on board approved • Required drills with line throwing equipment conducted and logged in accordance with applicable regulations • Equipment provided within time limits for service life	_____	_____
EE09	Inspect pyrotechnics. • Proper type equipment provided for vessel being inspected • Equipment provided within time limits for service life • Equipment properly stowed	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Persons in charge of lifeboats knowledgeable in use of equipment		
ES01	Inspect switchboards.	_____	_____
	• Nonconductive mat on deck in front of board • Nonconductive rails on board face • Nonconductive rails at the rear and sides • Dripshield on the board's top • Ground detection indicators working with no grounds indicated • Meters calibrated and working • Synchronizing controls working. • Identification for controls and meters • Area is dry and clean • Working space is provided in accordance with regulations • Overcurrent protection properly labeled		
ES02	Inspect ship's service generators.	_____	_____
	• Generators of a size or arrangement which require overspeed trips • Operational test of overspeed trips and alarms within specified limits • If the DC or AC generators operate in parallel, are the reverse power/current trips working • Guards installed around rotating or live machinery • Discoloration from overheating apparent • Filters on air intakes working to keep internals free from dust and dirt • Windings oily or dirty • Odd bearing noises present • Voltage regulated within limits specified by CFR • Working diesel low lube oil pressure trip and alarms • Working high temperature detectors and alarms for AC generators • Nameplates properly in place		
ES04	Inspect emergency generator.	_____	_____
	• Means of starting is provided • The following alarms/shutdowns are operable: – Low lube oil pressure – High cooling water temperature – Overspeed – Fixed firefighting system shutdown • The generator auto-start circuit functions and the generator can power its full-rated load within 20 seconds and accept the final emergency load within 45 seconds of loss of the normal power supply		

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Independent fuel supply is provided, with remote shut-off valve installed and properly marked		
ES05	Inspect emergency batteries. • Size of installation and required ventilation • Battery box is properly lined • Batteries are secure in the trays • Adequate space is provided over the cells • A means of charging is provided • Conductor overcurrent protection is provided • Ventilation/charger interlocked	_____	_____
ES06	Inspect motor controllers. • Units are installed in suitable cases, or if open type, within limited access enclosure • Wearing parts are accessible • Controls are marked for each motor served • Wiring diagram is affixed to the controller enclosure • Motor controllers are drip-proof/watertight	_____	_____
ES07	Ensure lighting systems and fixtures are adequate and meet regulations. • Passageways and public areas • Machinery spaces • Passenger and crew spaces • Berth lights • Exit lights • Pilot ladders • Navigation • Signaling lights • Lifeboat and liferaft embarkation stations	_____	_____
ES09	Ensure receptacle outlets have grounding poles and are properly grounded.	_____	_____
ES10	Inspect distribution panels. • Circuit directory provided • Amperage ratings of the protective devices in accordance with required circuit directory • Panelboard blanks installed, where necessary	_____	_____
ES12	Survey electrical cable installation and determine: • Vertical and horizontal supports properly spaced • Radius of the bends exceed CFR specifications • Portable cables used for unauthorized purposes • Acceptable materials used	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Hazardous conditions exist (jury rigs, dead end cables, splices, etc.)		
ES14	Test internal communication and control systems and ensure the following systems work properly. • General alarms (bells and contractors) • Sound powered phones to all required stations • Engine order telegraph and wrong direction alarm • Public address system • Engineer's assistance needed alarm • Engineer's call system • Fire detection/fire alarm system • Refrigerated space alarm system	_____	_____
ES16	Inspect components installed in designated hazardous locations and ensure explosion proof installation. • Fuel purifier rooms • Paint locker • Cargo area • Pumprooms	_____	_____
ES18	Inspect the general alarm system emergency batteries.	_____	_____
ES19	Inspect ventilation systems and perform operational test of alarms and remote ventilation shutdowns.	_____	_____
FF01	Determine amount, type and location of fire protection equipment required. • By the vessel's Certificate of Inspection • By the respective regulations	_____	_____
FF02	Inspect fixed CO_2 systems. • Test sirens and time delays • Obtain servicing reports • Bottles underweight • Flexible loops serviced and tested • Diffuser heads clear • Access to CO_2 room free of obstruction • Hydrostatic test required by regulations • Instructions posted	_____	_____
FF06	Inspect Halon systems. • Coast Guard approved • Markings and notices correct and properly posted • Controls functioning	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Closure for protected spaces provided • Quantity sufficient • Vent and engine shutdowns functioning		
FF08	Inspect semi-portable fire fighting equipment. • Installation approved • System serviceable • Instructions posted • Correct type and amount on hand • Markings correct	_____	_____
FF09	Inspect portable firefighting equipment. • Fire extinguishers approved • Each unit serviceable • Adequate spare charges provided • Correct type and amount on hand • Distributed per fire control plan • Markings correct • Servicing properly logged	_____	_____
FF10	Inspect fire main and fire stations. • Correct number of fire pump(s) provided • Fire hoses meet acceptable standards • Equipment provided at each required fire station pursuant to regulations • Requirements for hose length and size at each fire station complied with • Fire pump(s) capable of providing adequate pressure to highest and most remote fire station using pitot tube • Pressure gauge installed on discharge side of fire pump • Fire hoses serviceable after hydro testing • Valves at fire stations operable • Fire main(s), hose(s), and equipment compatible at each station • Approved nozzles and applicators provided for each fire station • Fire pump relief valve functions properly • Markings correct	_____	_____
FF13	Witness operational test of fire detection system. • System serviceable • All sensors free of obstructions and functioning • Alarms and indicators functioning correctly • Required instructions and diagrams provided • Markings correct	_____	_____
FF14	Inspect and ensure proper operation of fire doors and dampers. • Test controls: local/remote	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*

- Remote shutdowns for machinery spaces and quarters ventilation systems
- Markings correct
- Fusible links

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
FF17	Review fire control and hazardous location plans. • Complies with regulations • Correctly reflects the vessel as found • Indicated markings and positioning of fire extinguishing equipment correct • In required locations	_____	_____
FF18	Inspect fire axes. • Correct number provided • Marked properly • Distributed adequately	_____	_____
FF19	Inspect condition of vents and ducts leading from grill in galley for fire hazard.	_____	_____
FF20	Examine fire control plan and/or general arrangement plan to verify structural fire protection required on the vessel under inspection.	_____	_____
FF21	Determine that appropriate Class A boundaries separate accommodation and control spaces from the following: • Machinery spaces • Main pantry • Hazardous locations/classified areas • Storerooms	_____	_____
FP01	Verify that the required forms, placards, and notices are posted. • Pollution/MARPOL: – Placard – Waste management plan • Coast Guard forms: – CG-809: Station bills, drills – CG-811: Lifesaving signals and instructions – CG-841: Certificate of Inspection – CG-848: Station Bill – CG-2832: Vessel Inspection Record – CG-3372: Oil Pollution • Passenger notices • Plans posted: – General arrangement – Fire control plan • Rules and regulations for class of vessel • SOLAS certificates • Markings: conspicuous and legible	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
GT01	Verify that ground tackle and related equipment is in satisfactory condition. • Anchors • Chain • Winch and foundations • Anchor chain stoppers • Anchor handling davits	_____	_____
GT04	Inspect mooring system and equipment. • Structurally sound bitts, cleats, fairleads and winches • Adequately sized and serviceable mooring lines and wires	_____	_____
II01	Review vessel documents listed in MSIS and VFLD and papers, and state if each is valid or expired.	_____	_____
II05	Discuss scope of inspection with owner's representative. Decide on general sequence of inspection.	_____	_____
II06	Obtain CG-2692 for reportable marine casualties/ structural failure report.	_____	_____
II07	Examine gas-free certificate issued by an NFPA-certified marine chemist for hot work and/or confined space entry. • Information on the gas-free certificate meet the requirements of NFPA Standard 306 and Coast Guard confined space entry/benzene exposure policy • Gas-free certificate been maintained by a designated competent person and records kept as required by OSHA regulations • Marine chemist certified by NFPA • Review benzene and confined space entry policies	_____	_____
II08	Review hull gaugings and compare with original scantlings. Consider spot gauging by NDT or drilling.	_____	_____
II09	Review any MSIS inspection notes and outstanding deficiencies (CG-835s). Ask owner's representative if any other deficiencies exist.	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
LB01	Examine approved operating manual. • Table of contents and index • Vessel description • Design limits for each operating mode • Maximum allowable deck loads • Location and use of cross-flooding fittings • Heavy weather guidance • Guidance on changing operating modes • Operational limitations for each operating mode • Leg flooding guidance • Bilge system description, diagram and operation • General arrangement diagram • Hazardous location diagram • Emergency power diagram	_____	_____
LB02	Conduct leg inspection. • Check for deflection • Leg to pad connections • Hull to jacking tower connections	_____	_____
LB03	Examine jacking systems. • Racks • Drive motors • Momentary switch • Drive pinions • Planetary gears • Controls	_____	_____
LB04	Examine hydraulic systems. • Prime movers • Piping • Jacking system • Reliefs • Alarms • Hose fittings • Reservoirs • Fail-safe	_____	_____
LB05	Examine firemain suction.	_____	_____
LB06	Inspect cranes. • Controls • Load chart • Wire rope/hook	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Sheaves/blocks • Pedestal mounting		
LB06 (cont'd.)	• Fittings and hoses • Boom angle indicator • 5-year load test • Personnel basket condition		
LB07	Examine freeboard marks.	_____	_____
LB08	Examine test alarm installation. • Emergency power source • Test	_____	_____
LS01	Determine amount and type of lifesaving equipment required. • Certificate of Inspection • CFRs • SOLAS	_____	_____
LS05	Inspect life preservers. • Properly equipped with lights, whistles and reflective tape • Approved for intended service • Sufficient serviceable units aboard and properly stowed • Properly marked	_____	_____
LS06	Inspect ring buoys. • Approved for intended service • Properly colored and marked • Correctly equipped with waterlights and line • Serviceable • Sufficient number of ring buoys are aboard	_____	_____
LS07	Inspect survival suits. • Equipped as required • Physically serviceable • Sufficient number of units aboard and properly stowed	_____	_____
LS16	Inspect inflatable liferaft installations. • Serviced annually • Last servicing date at approved facility • Properly secured in the cradle designed for them • Hydrostatic releases serviced • Alternative means of securing meets criteria promulgated in NVIC 4-86	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Suspension test • Davit weight test • Operating instructions posted at embarkation station		
LS17	Inspect rescue boat. • Maintained in serviceable condition • Stowed in proper location as indicated on safety equipment plan • Can be readily launched either by hand or by davit • Rescue boat is on "approved" list • Release mechanism is in service and in good condition • Required equipment in boat	_____	_____
LS18	Determine if vessel meets criteria for use of rescue platforms in lieu of a rescue boat.	_____	_____
MI01	Determine condition of the following components of the steering gear assembly: • Insides of motor controller and switch gear boxes • Mounting bolts for all equipment (vibration) attachments, links and pins • Freedom of movement and absence of any friction noises on motors and pumps • Cleanliness of space (absence of fire/personnel hazards) • Evidence of saltwater leakage through rudder post packing or vent ducts	_____	_____
MI04	Inspect fuel oil service and transfer system. • Determine condition of piping and manifolds • Determine condition of fuel oil HP and LP strainers • Ensure fuel oil pump relief pump valves discharge to suction side of fuel oil pumps • Ensure no excessive fuel oil leakage exists • Ensure that spray shields are installed on flanged joints • Witness operation of fuel oil pumps • Ensure instrumentation is operable • Externally examine fuel oil heaters • Test remote operated fuel oil system valves • Determine condition of fuel oil tank vent lines and flame screens	_____	_____
MI06	Inspect bilge pumps installation, piping, and valves. • System capable of pumping from any watertight compartment except ballast, oil and water tanks • Standing water drains to suction pipes • Bilge manifold has independent bilge suction control and is	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	properly marked • Suction strainers are installed • Emergency bilge suction installed, where required • Instrumentation operable		
MI08	Examine refrigeration/air conditioning machinery. • Rotating machinery guards • Piping • Wiring • Pressure vessels	_____	_____
MI09	Examine potable water system. • Dedicated tanks; treated or coated • Tanks ventilated with insect screens installed • Water pump(s) and pressurization system operable • Pressure tank installation	_____	_____
MI10	Determine what operational tests are required; witness tests and state if results are satisfactory. • Overspeed trips • Low lube oil shutdowns and alarms • High coolant temperature alarm	_____	_____
MI13	Inspect the diesel installation and assembly, paying particular attention to the following: • Crankcase explosion covers • Fuel and lube oil fittings (checking for leakage) • Instrumentation • Gratings and rails around the engine • Guards over rotating machinery • Exhaust system: – Leaks – Lagging – Proximity of combustible material or walkways – Water cooling system – Bulkhead penetrations • Engine foundations and tank top's structural condition • Air intakes • Crankcase vents (clear)	_____	_____
MI16	Inspect air starting systems. • Air receivers • Piping • Compressors	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
MI17	Inspect hydraulic starting systems. • Pumps and strainers • Piping • Accumulators	_____	_____
MI18	Inspect electrical starting systems.	_____	_____
MI19	Witness operational test of main propulsion diesel automation system. • Determine that the system has not been modified/jury rigged and is the same as that depicted in the procedures • Testing the automation system using the methods specified by approved procedure • Verify that automatic systems have not been bypassed or overridden by manual devices except as noted in approved test procedure • Verify proper operation of required alarms, shutdowns, controls and internal communications in accordance with the approved test procedure • Verify that bridge controls/alarms function in sync with engineroom control panel • Based on automation system testing, assess if vessel manning remains consistent with regulation/policies and determine corrective action, if necessary: – Temporary increase of engineroom manning – Further underway evaluation	_____	_____
MI22	Internally examine unfired pressure vessels requiring internal examination. • Check for corrosion, scale, pitting, cracks and erosion • Examine welded connections internally	_____	_____
MI23	Externally examine unfired pressure vessels. • Pressure gauge • Evidence of structural damage • Data plate legible • Foundations structurally sound • Attachments secure	_____	_____
MI24	Hydrostatically test unfired pressure vessels requiring hydrostatic testing. • Determine MAWP • Observe pressure test	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
MI25	Ensure all unfired pressure vessels are properly equipped with pressure relief valves in accordance with regulations.	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
MI26	Witness pressure relief valve test. • MAWP not exceeded • Valve seats tightly • Capacity not exceeded • Correct valve type • Hand lifting device	_____	_____
MI30	Conduct a fireside and external examination of an auxiliary/heating boiler. • Furnace (distortion) • Combustion chamber (crown sheet, wrapper sheet, back sheets (distortion) • Boiler shell and heads • Stay bolts • Boiler saddles and foundations • Plating in way of mountings (wastage due to leaking valves and fittings) • Cracks in the plating due to flexing of the heads or leakage • Wastage around manhole gaskets • Note heat number and condition of fusible plugs	_____	_____
MI31	Conduct a waterside examination of an auxiliary/heating boiler. • Tubes (Pitting - determine general depth and tube type) • Internal surface conditions (scaling, pitting, corrosion, erosion)	_____	_____
MI32	Conduct required mountings inspections as follows: • 5-year mountings open: – Determine which valves to be opened – Inspect seat, disc, stem, integrity of valve body, condition of stem packing gland and gland ring bolts • 10-year mountings removed, studs examined including inspection as per mountings open and: – Determination of valves to be removed for inspection of pressure piping between valve and boiler. – Representative studs removed from valve flanges for inspection to determine: ∗ Integrity of studs due to corrosion, neck down, deformation and thermal stress ∗ Proper grade installed for system pressure and temperature	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
MI33	Conduct a hydrostatic test of the boiler(s). • Test conducted in conjunction with required fireside exam. • Appropriate test pressure (annual, quadrennial, repair) • Water temperature is within limits • Test pressure is achieved and held for the required time period • Blanks are installed in steam lines where necessary so a situation does not arise where a valve separates steam on one side from water on the other • Tube joints, header connect, and handhole plates tight • Main steam piping tested from boiler drum to throttle valve • All steam piping subject to main boiler pressure and greater than 3 inches nominal size is tested	_____	_____
MI34	Witness the lifting and reseating of superheater and drum safety valves including pilot operated valves. • Determine MAWP • Ensure that drum safety valve is set no higher than MAWP but above normal steaming range • Ensure that the superheater safety valve is set correctly in relation to drum valves. See manufacturer's boiler book for pilot operated valve • Ensure that the "blow down" falls within 2-4% of the set pressure for each valve • Ensure that there is no simmering or chattering • Test hand relieving gear • Ensure integrity of escape piping	_____	_____
MI38	Ensure insulation is provided to reduce personnel hazard.	_____	_____
NS01	Ensure radars are operable. • ARPA operational • Correct number and type of radars aboard	_____	_____
NS02	Inspect magnetic compass. • Valid deviation table • Any structural modification taken place or equipment been installed/removed near compass since last table completed	_____	_____
NS03	Ensure required depth sounding/recording equipment is operable.	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
NS04	Ensure radio direction-finding equipment and electronic position fixing devices are provided and operable.	_____	_____
NS05	Ensure radio equipment and FCC or SOLAS documents are aboard and valid.	_____	_____
NS06	Inspect navigation and signal lights. • Properly functioning • Correctly placed in accordance with applicable regulations • Certificate of alternative compliance on board • Properly functioning navigation light indicator panel	_____	_____
NS09	Inspect signaling devices. • Navigation sound appliance • Distress signals • Navigation day shapes	_____	_____
NS10	Inspect navigation publications. • Those required by CFR provided • Publications are current or updated where necessary • Necessary charts provided and corrected • Vessel has up-to-date notice to mariners	_____	_____
NS12	Ensure the following navigational equipment is on board. • International signal flags • Whistle • Proper fog signal devices • Properly located fog gong	_____	_____
NS14	Ensure that tests required to be conducted prior to getting underway and entering port were logged in accordance with applicable regulations.	_____	_____
NT01	Approve NDT method for specific applications.	_____	_____
NT02	Check the certification of the NDT technician.	_____	_____
NT03	Witness NDT in accordance with applicable standards. • Dye penetrant • Magnetic particle • Radiography • Ultrasonics	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
NT04	Evaluate NDT results.	_____	_____
PP01	Inspect pollution prevention equipment and documentation. • Discharge containment in place and of the proper type and size for cargo, fuel, or lube oil, as needed • Slop tank provided and located in accordance with regulations • Pump, fixed or portable piping system(s), valve(s), and controls, as the regulation apply to vessel in question, are provided to remove dirty oil and bilge slops • Pump, fixed piping, valve(s), and controls are provided for combined fuel and ballast tank(s) as needed and where specified by regulation • Oily water separator installed properly and functions correctly • Oil discharge prohibition placard is placed at the bilge and ballast manifold and/or in each machinery space • No fuel or dirty oil is carried in a prohibited oil space except as specified by regulation • Proper documentation for the person(s) assigned to vessel who deal directly with oil transfer to and from vessel • Required transfer procedures are correct, complete, and available to assigned personnel as required • Emergency shutdown system(s) function properly • Adequate communication between participants in transfer operations and sufficient lighting at critical work stations are provided where specified by regulation. • Required records for tests and inspections of oil transfer hoses and equipment and declarations of inspection are available, current and correct, where required • Scupper plugs are available for use during oil transfer operations	_____	_____
PP03	Insure that MSD requirements are met, if installed. • Proper type installed • Device approved for use aboard inspected vessels • Adequate capacity • System is piped and wired in accordance with Subchapters F and J • Manufacturer's instructions available • Required instructions and warning placard posted	_____	_____
PP04	Conduct an IOPP boarding and survey, and verify that required equipment is on board and in proper working order. • Segregated ballast tanks	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
	• Dedicated clean ballast tanks • Slop tanks • Monitoring equipment		
PP05	Verify MARPOL V compliance. • Check waste management plan • Plastics retained or incinerated • Placards posted	_____	_____
RT01	Complete Initial Indoctrination Lesson Plan Series (IILPS).	_____	_____
RT02	Complete Inspection Department Course.	_____	_____
RT06	Complete SMI Introduction Course.	_____	_____
RT09	Complete SMI OSV Course or the Hull and Machinery Courses.	_____	_____
ST02	Examine stability letter.	_____	_____
VS02	Inspect vents to voids, ballast, and portable water tanks. • Condition of vent lines • Insect screen provided and in good repair • Means of closure provided and operable	_____	_____
VS03	Examine deck openings and vents. • Access covers bolted securely • Access cover gaskets in good condition • Vent closures	_____	_____
WI01	Inspect watertight doors. • Knife edges intact and in good repair; no excessive paint buildup • Gasket material installed in channel is in good condition and not painted • Knife edges and channel meet as designed when door closed • Hinges and hinge bolts in good condition; no sagging of door due to rounded out hinges or worn hinge bolts • Dogs are all operable; grease fittings still usable • Dogging wedges not excessively worn and fit up satisfactory • Quick-closing gear operable and adequate closure achieved • Any port lights installed in watertight doors use wire mesh reinforced glass • Dogging wrench provided in vicinity of watertight door(s)	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
WI03	Inspect watertight bulkhead penetrations. • Penetrations properly sealed to maintain watertight integrity through use of devices such as stuffing tubes • Sealant used, if stuffing tubes are employed, is non-flammable product designed for such use and is approved	_____	_____
WI05	Inspect remote-operated valves and controls. • Each valve identified as to function either by tag affixed to handle or by independent means • Each valve adequately lubricated and freely operated • Reach rods and other manual remote control mechanisms function properly • Each power-operated valve can be operated from control stations • An adequate means of control is provided to secure valves on fuel and lube oil lines to prevent pollution incident	_____	_____
WI06	Inspect bilge wells and "rose boxes." • They are clear of debris; strainer plates in place • Bilge pumping system(s) function adequately (demonstrate ability of system to take suction from each bilge well) • Bilge alarms function properly	_____	_____
WI07	Inspect hull and deck openings. • Dogs, gaskets and knife edges maintained as previously described for watertight doors, on any hull or deck openings • Cargo hatches structurally sound and watertight; hatches observed in secured position to verify • Sideports and Ro-Ro Ramps, if applicable, structurally sound and watertight	_____	_____
WI09	Inspect port light covers. • Port lights at the main deck level have a cover installed • Dogs free on each shutter • Shutters restricted in their movement from stowed-to-closed position	_____	_____
WI11	Evaluate steel or aluminum hulls and all accessible spaces for damage. • Wastage • Fractures • Upsets of shell plate • Deformed framing or stiffeners • Evaluate proposed repairs • Unauthorized/improper repairs or modifications	_____	_____

OI Tasks

Task Number	*OJT Task*	*Date Completed*	*Verifying Officer*
WR01	Evaluate welding repair proposal. • Plan or sketch submitted with bill of materials • Configuration of repair acceptable • Material specification same as existing or equivalent • Method of joining acceptable	_____	_____
WR02	Complete initial visual inspection of weld repair. • Examine fit up in accordance with approved weld procedures • Examine joint preparation in accordance with approved weld procedures • Verify materials (base, filler, gas) in accordance with approved weld procedures • Verify proper preheat temperature/time in accordance with approved weld procedures • Evaluate weather conditions • Check welding equipment in accordance with approved weld procedures	_____	_____
WR03	Complete intermediate visual inspection of weld repair. • Check back gouging for full penetration weld • Check proper cleaning between weld passes • Check interpass temperatures in accordance with approved procedures • Verify that proper weld sequencing is followed • Evaluate weather conditions	_____	_____
WR04	Complete final visual inspection of weld repair. • Perform dry search to ensure welding complete and followed weld details • Perform surface inspection of welds for defects • Verify proper postheat temperature/time in accordance with approved weld procedures	_____	_____
WR05	Witness pressure testing of welded repairs. • Witness hose testing • Witness air testing • Witness hydrostatic testing	_____	_____
WR06	Examine approved Weld Procedure Specification and Welder Performance Qualifications.	_____	_____

DATE	LOCATION	VESSEL NAME	VESSEL CLASS	INSPECTION TYPE	LEAD INSPECTOR

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